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Comparison of Examination Fees and Availability of Routine Vision Care by Optometrists and Ophthalmologists

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Synopsis

A national telephone survey of eye care practitioners shows that the average fee for routine eye examinations was less among optometrists than ophthalmologists. The average wait for the earliest appointment was 5 days for optometrists and 20 days for ophthalmologists. Weekend and evening appointments were also more obtainable among optometrists. The study did not determine what tests were included in the routine examination of each practitioner.

Optometrists are licensed to use diagnostic drugs in all 50 States and prescribe therapeutic drugs for the treatment of ocular diseases in 25 States. Legislation that would update State laws permitting doctors of optometry to prescribe and use pharmaceutical agents for the treatment of eye diseases has been introduced in many of the remaining States. Supporters of bills permitting therapeutic pharmaceutical optometry contend that these changes would ensure the availability of quality eye care at significant savings, since optometric fees are generally lower than opthalmological fees. In addition, it has been argued that optometrists are equitably distributed geographically and are more likely to have weekend and evening office hours, thus enabling increased patient access to eye care. When considering cost-effectiveness and accessibility, this study may provide information to those States considering changes in the scope of optometric licensure.

MOST EYE CARE EXAMINATIONS in this country are provided by optometrists and ophthalmologists. Optometrists (doctors of optometry, [ODs]) provide complete eye examinations including tests for ocular disease and refractions for eyeglasses. Optometrists are licensed to use diagnostic drugs in all 50 States and prescribe therapeutic drugs for the treatment of ocular disease in 25 States. They are trained to diagnose eye diseases and detect ocular manifestations of other systemic diseases.

Ophthalmologists (MDs) are physician specialists who perform eye surgery, treat ocular disease, and provide general eye examinations including refractions. The services of optometrists and ophthalmologists overlap in the provision of general eye examinations and tests to diagnose disease. The overwhelming number of eye care visits are for these services.

In 1988, there were 26,100 active optometrists (*1*) and 15,581 active ophthalmologists in the United States (*2a*), with 10.6 optometrists per 100,000 population as compared with 6.3 ophthalmologists (table 1). The ratio of both optometrists and ophthalmologists varies considerably among States. Ophthalmologists tend to be concentrated in the Northeast and Midwest, while optometrists have above-the-average ratios in all census regions of the country except the South (*3a*).

Table 1. Active optometrists and ophthalmologists and ratios by population

Year	Optometrists		Ophthalmologists	
	Number	Per 100,000 population	Number	Per 100,000 population
1970.....	18,400	8.9	9,927	4.8
1980.....	22,200	9.7	12,974	5.6
1988.....	26,100	10.6	15,581	6.3
2000.....	33,100	12.3	19,790	7.4

SOURCE: References 1,2.

Table 2. Disposition of telephone calls to optometrists and ophthalmologists concerning eye examination, 1989

Category	Ophthalmologists	Optometrists
Total physician calls attempted.....	1,197	1,159
Unable to contact after 3 calls.....	77	126
Ineligible; do not provide routine eye examination or specialist only.....	84	10
Not in general population practice.....	16	7
Incompletes, refusals.....	17	16
Completed interview.....	1,003	1,000

Optometrists serve many areas that lack ophthalmological care. An analysis of the registeries of optometrists and ophthalmologists in 1983 found that optometrists were practicing in 6,612 communities in the United States, and ophthalmologists were practicing in 2,459 communities. Optometrists were the only providers of primary eye care in 4,153 communities (*2b*).

In April 1987, the Medicare Program was modified with respect to the participation of optometrists. Previously, optometry's participation in the Medicare Program was restricted to the provision of eye care services to the aphakic (post-cataract) patient. The only optometric service recognized for reimbursement was related to eye examinations to patients who had already undergone cataract surgery and the provision of ophthalmic materials to these patients. In 1987, with the passage of the Omnibus Budget Reconcilation Act of 1986 (Public Law 99-509), the provision of optometric services were vastly expanded. Optometrists are now defined as physicians, for Medicare purposes, with respect to the provision of all Medicare covered services that they are licensed to perform under State law or regulation. The expansion of vision care was implicitly designed to increase access to care among the elderly population.

The purpose of this study was to test the premise that routine eye care services were more available and accessible through optometric offices than ophthalmological offices. A survey was designed to determine whether there are differences between optometrists and ophthalmologists on several characteristics associated with the provision of routine eye examinations. Specifically, the study sought to determine fees for routine eye examinations, visual field tests, appointment availability, acceptance of Medicare assignment, and acceptance of Medicaid patients.

Method

A national telephone survey of optometrists and ophthalmolgists was conducted for a 4-week period beginning January 9, 1989. Audits and Survey, a marketing research organization, was commissioned to perform the survey. A systemic random sample of providers was selected from the most recent editions of the "Blue Book of Optometrists" (1988-89) and the "Red Book of Ophthalmologists" (1987-88). The use of commercial directories as a source of data has some limitations—they tend to include retired or otherwise inactive practitioners. The National Center for Health Statistics, in its inventory of optometrists in 1979, recognized that its data base was somewhat incomplete and used the "Blue Book of Optometrists" to augment information for its study (*3b*).

Selection of providers by an equal probability method was used to ensure that the sample would mirror the universe. The universe was defined as all eye care providers in private practice in the United States. A total of 2,003 interviews were conducted by telephone—1,000 optometrists and 1,003 ophthalmologists. This number represents 3.9 percent of all practicing optometrists and 6.4 percent of all ophthalmologists. The sample of optometrists and ophthalmologists closely resembled the actual distribution of all practitioners by State.

Interviewers called as if they were making an appointment for a parent and requested information before an appointment was made. Interviewers were trained and provided with the scenario so that all responses would pertain to the same type of potential patients, and the interviewer would be able to answer questions asked of them. Each office was informed that the patients had no problems with their eyes but wanted to have them checked each year.

Patients were said to have Medicare coverage. A short interview form was completed for each re-

Table 3. Mean and standard error of fees for routine eye examinations, by region 1989

Category	Total	Northeast	Midwest	South	West
			Optometrists		
Number of offices surveyed	1,000	239	251	288	222
Percent with fees of $50 or less	85	93	92	93	60
Percent with fees above $50	15	7	8	7	40
Mean fee	$42 ± 0.4	$38 ± 0.7	$39 ± 0.6	$39 ± 0.5	$51 ± 0.9
			Ophthalmologists		
Number of offices surveyed	1,003	265	213	302	223
Percent with fees of $50 or less	36	32	51	47	41
Percent with fees above $50	64	68	49	53	89
Mean fee	$61 ± 0.6	$64 ± 1.6	$54 ± 0.9	$56 ± 1.0	$72 ± 1.1

spondent, detailing information on costs, services offered, type of payment accepted, and the earliest appointment available. All calls were made on weekdays between 9 am and 5 pm local time. When necessary, up to three callbacks were made to reach each sampled physician. Providers with nonworking numbers, or for whom no telephone listing could be obtained from the directories or from telephone information, were eliminated. Specialists who responded that they do not provide routine eye examinations were also excluded. Interviewers most often spoke with receptionists or other persons in the office designated to schedule appointments. The disposition of all calls is presented in table 2. At the conclusion of the telephone conversation, the potential appointments were not made.

Survey Results

Examination fees. The study data indicate that optometrists charge considerably less than ophthalmologists for routine eye examinations. The average fee for routine eye examinations performed by an optometrist is $42; the average fee for the examination by an ophthalmologist was $19 more, or $61. Nationally, 85 percent of all optometrists charge $50 or less for an examination compared with approximately one-third of all ophthalmologists (36 percent). Furthermore, more than 21 percent of ophthalmologists charge $75 or more compared with only 2 percent of optometrists with fees at that level. Regional differences (with the corresponding standard error) are shown in table 3.

An analysis was also undertaken to determine differences in large metropolitan areas, small metropolitan areas, and rural areas, defined as counties with less than 150,000 population. Optometrists' examinations range from $40 to $43 regardless of the areas's population. On the other hand, rural ophthalmologists generally charged about $50; those practicing in any of the 25 largest metropolitan areas charged an average of $68.

More than one-third of all ophthalmologists (34 percent) charged more than $50 for an eye examination in rural communities as compared with only 8 percent of optometric practitioners. Among optometrists, the proportion charging more than $50 in large cities was 22 percent in contrast to 78 percent of all ophthalmologists.

Visual field test. Some practitioners included a visual fields test (such as perimetry, automated fields, or tangent screen test) as part of their regular fee for the examination, while others charged additional fees for these. Optometrists are more likely to include a visual field test as part of the routine eye examination. Only 7 percent of all ophthalmologists include a visual field test with the original examination fee compared with 38 percent of all optometrists. When separate fees were charged, ophthalmologists charged an average of $62 (±1) extra for a visual field test as compared with $43 (±2) among optometrists.

Medicare, Medicaid. Half of all eye care practitioners (50 percent of optometrists and 56 percent of ophthalmologists) accepted Medicare assignment. Rural optometrists were more likely to accept Medicare assignment (59 percent) than their counterparts in large metropolitan areas (45 percent), while slightly fewer ophthalmologists in rural areas were less likely to accept Medicare (53 percent) than those in urban areas (57 percent).

Medicaid patients were accepted by 55 percent of all optometrists and 51 percent of all ophthalmologists. Nearly three-quarters of both provider types accepted Medicaid in rural communities. However, only 39 percent of all ophthalmologists in the northeastern region agreed to accept Medicaid as compared with 51 percent of all optometrists.

Soonest available appointment with an optometrist or an ophthalmologist, by census region, 1989

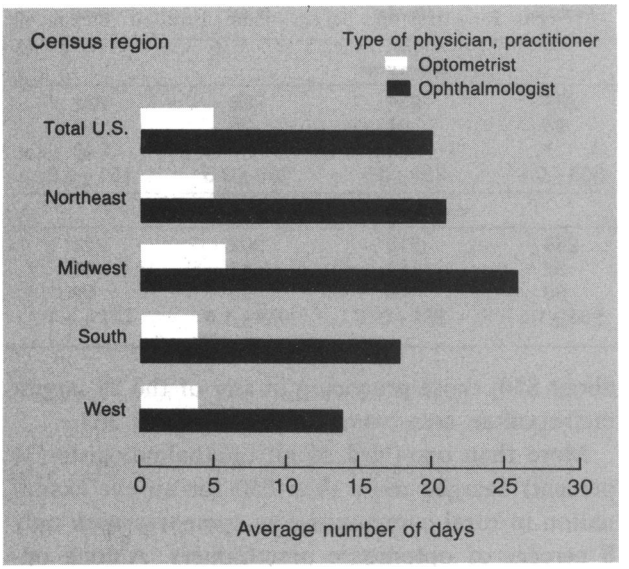

Table 4. First available appointment for routine eye examination by region 1989 (percentage)

Category	Total	Northeast	Midwest	South	West
			Optometrists		
Total number	1,000	239	251	288	222
Same day or next	29	26	20	41	25
2–6 days	52	54	52	45	60
7–13 days	15	15	22	11	11
14–20 days	2	4	2	1	1
21–27 days	2	1	2	1	1
28 days or more	1	0	1	1	1
			Ophthalmologists		
Total number	1,003	265	213	302	223
Same day or next	7	7	2	10	7
2–6 days	27	24	27	24	34
7–13 days	25	22	22	28	28
14–20 days	12	13	13	11	11
21–27 days	11	13	13	9	8
28 days or more	18	20	23	17	12

Appointment availability. Access to care was measured by appointment availability. The average number of days for the earliest available appointment was 5 for optometrists and 20 for ophthalmologists (see chart). Appointment availability was distinctly different between both practitioners as illustrated in table 4. An appointment could be made within 6 days in 80 percent of all optometric practices but in only 34 percent of all ophthalmological practices. Twenty-nine percent of all ophthalmologists had a wait of 3 weeks or more as compared with only 3 percent of all optometrists.

Weekend or evening appointments for routine eye care were more obtainable among optometrists. While three of four optometrists had evening or weekend hours, less than one of four ophthalmologists were available for this service during these times. Weekend and evening appointments were available with 80 percent of all optometrists in large metropolitan areas and 72 percent in rural areas. By comparison, ophthalmologists were available in only 30 percent of large metropolitan areas and 12 percent in rural communities. Among those practitioners having evening or weekend hours, the average wait for an appointment was 12 days for an optometrist and 23 days for an ophthalmologist.

Discussion

In this study, there are no inferences about the quality of care rendered by both disciplines. The same components of a comprehensive eye examination as defined by ophthalmology (*4*) and optometry (*5*) are employed by both providers to detect and diagnose ocular and visual disorders. Indeed, both providers share common billing and procedure (CPT–4) codes for third party programs, especially Medicare. The growing medical orientation of optometry and optometric practice acts that permit the use of drugs for diagnostic and therapeutic purposes in the treatment of diseases by optometrists has been recognized by the courts in using a standard of care expected of optometrists. Recent professional liability cases involving optometrists have demonstrated how the courts have imposed a medical standard of care for optometrists (*6*). Some States have adopted by statute a medical standard of care for optometric practitioners (*7*). The study design did not determine what actual tests and procedures were included within the routine eye examination of each practitioner.

There is no evidence that ophthalmologists provide a different routine eye examination than optometrists. As a result of State licensing changes during the past 10 years, all 50 States permit optometrists to use diagnostic pharmaceutical agents to detect ocular diseases. Hence, the optometric and ophthalmological license are essentially the same in this respect. It was assumed that a general eye examination was similar among all respondents. Obviously, there may be some variability in individual practitioner routines. However, since all ophthalmologists are licensed to dilate, while some optometrists may not be so certified, there could be some differences in this regard. Included in the arguments that supported the regulatory change in the Medicare Program in 1987 was the contention that optometric care was less

costly and more accessible than ophthalmological care. This study demonstrated that optometric practices are accessible during more weekend and evening hours and have shorter waiting periods for appointments and lower fees for routine eye examinations than ophthalmological practices.

The importance of practitioner fees is not limited to its impact on the Medicare Program. Since this study found that 50 percent of both ophthalmologists and optometrists were not accepting Medicare Part B assignment in 1987, lower fees represent an out-of-pocket savings to those Medicare beneficiaries using the services of nonparticipating providers.

During the past 14 years, 25 States modified their laws to permit optometrists to use therapeutic drugs in the treatment and management of ocular diseases. This study's findings provide further evidence as to the cost and availability of routine eye care by the nation's eye care providers as the remaining States debate optometry's role in providing eye care.

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